

Amendments to the Specification:

Please replace the Abstract with the attached amended Abstract.

Please replace the paragraph beginning on page 4, line 6, with the following rewritten paragraph:

To attain the above object, according to a first aspect of the present invention, there is provided a method of production of a silicon carbide single crystal by precipitation from a solution using a temperature gradient furnace giving a temperature gradient to a columnar workpiece in its longitudinal direction, comprising using as the temperature gradient furnace a temperature gradient furnace provided with heat insulating walls surrounding an outer circumference of the columnar workpiece, a heating unit for heating a bottom end of the columnar workpiece through a heating susceptor, and a cooling unit for cooling a top end of the columnar workpiece through a cooling susceptor; stacking, inside the furnace in order from the bottom, a source material rod comprised of silicon carbide, a solvent, a seed crystal, and a support rod supporting the seed crystal at its bottom end so as to form the columnar workpiece, heating a bottom end of the source material rod as the bottom end of the columnar workpiece by the heating unit, and cooling a top end of the support rod as the top end of the columnar workpiece by the cooling unit so as to form a temperature gradient inside the columnar workpiece so that the top end face becomes lower in temperature than the bottom end face of the solvent; and causing a silicon carbide single crystal to grow continuously to the bottom downwardly starting from the seed crystal, wherein the method further comprises using an inside cylindrical susceptor tightly surrounding the outer circumference of the columnar workpiece.

Please replace the paragraph beginning on page 4, line 35, with the following rewritten paragraph:

According to a second aspect of the invention, there is provided a method of production of a silicon carbide single crystal by precipitation from a solution using a temperature gradient furnace giving a temperature gradient to a columnar workpiece in its longitudinal direction, comprising using as the temperature gradient furnace a temperature gradient furnace provided with heat insulating walls surrounding an outer circumference of the columnar workpiece, a heating unit for heating a bottom end of the columnar workpiece through a heating susceptor, and a cooling unit for cooling a top end of the columnar workpiece through a cooling susceptor; stacking, inside the furnace in order from the bottom, a source material rod comprised of silicon carbide, a solvent, a seed crystal, and a support rod supporting the seed crystal at its bottom end so as to form the columnar workpiece, heating a bottom end of the source material rod as the bottom end of the columnar workpiece by the heating unit, and cooling a top end of the support rod as the top end of the columnar workpiece by the cooling unit so as to form a temperature gradient inside the columnar workpiece so that the top end face becomes lower in temperature than the bottom end face of the solvent; and causing a silicon carbide single crystal to grow continuously ~~to the bottom~~ downwardly starting from the seed crystal, wherein the method further comprises using as the source material rod a source material rod provided with a counter bore of an inside diameter equal to an outside diameter of the seed crystal on the top face and pulling up the support rod at the time where a predetermined thickness of the single crystal is grown so as to detach the single crystal from the solvent.